

# **Brainstorming workshop: Deciphering the equation of state using gravitational waves from astrophysical sources**



## **Report of Contributions**

Contribution ID : 1

Type : **not specified**

## **Marek Szczepanczyk "Observing gravitational waves from cosmic sources"**

*Monday, 5 August 2024 10:30 (45)*

**Session Classification :** Talks: Theory of GW emission and detection

Contribution ID : 2

Type : **not specified**

## **Shota Shibagaki "Multimessenger signals from core collapse of massive stars"**

*Monday, 5 August 2024 11:15 (45)*

**Session Classification :** Talks: Theory of GW emission and detection

Contribution ID : 3

Type : **not specified**

## **Martin Urbanec "Universal relations among neutron star parameters"**

*Monday, 5 August 2024 12:20 (45)*

**Session Classification :** Talks: Theory of GW emission and detection

Contribution ID : 4

Type : **not specified**

**Noshad Khosravi Largani "Gravitational wave mode  
analysis of QCD phase transition driven  
core-collapse supernova explosions"**

**Session Classification :** Discussion: Theory of GW emission and detection

Contribution ID : 5

Type : **not specified**

## **Discussion round**

**Session Classification :** Discussion: Theory of GW emission and detection

Contribution ID : 6

Type : **not specified**

## **Noshad Khosravi Largani "Probing the QCD phase transition within various astrophysical scenarios"**

*Monday, 5 August 2024 15:00 (30)*

**Session Classification :** Talks: Theory of GW emission and detection

Contribution ID : 7

Type : **not specified**

## **Stefan Typel "Equation of state of neutron star matter in an relativistic density functional approach"**

**Session Classification :** Talks: Nuclear physics input in simulations



Contribution ID : 8

Type : **not specified**

## **Udita Shukla "Speed of Sound in Dense Medium"**

**Session Classification :** Talks: Nuclear physics input in simulations

Contribution ID : 9

Type : **not specified**

## **Kamil Sokołowski "Infinite nuclear matter within the Hartree-Fock approximation for nucleons and pions"**

**Session Classification :** Talks: Nuclear physics input in simulations

Contribution ID : 10

Type : **not specified**

## **Pok Man Lo "Towards Dense(r) Equations of State: Insights from Heavy Ion Collisions and Lattice QCD"**

*Tuesday, 6 August 2024 15:30 (45)*

**Session Classification :** Talks: Nuclear physics input in simulations

Contribution ID : 11

Type : **not specified**

## **Stefan Typel "Equation of state of neutron star matter in an relativistic density functional approach"**

*Tuesday, 6 August 2024 10:30 (45)*

**Session Classification :** Talks: Nuclear physics input in simulations

Contribution ID : 12

Type : **not specified**

## **Kamil Sokołowski "Infinite nuclear matter within the Hartree approximation for nucleons and pions"**

*Tuesday, 6 August 2024 11:15 (30)*

**Session Classification :** Talks: Nuclear physics input in simulations

Contribution ID : 13

Type : **not specified**

## **Udita Shukla "Speed of Sound in Dense Medium"**

*Tuesday, 6 August 2024 12:05 (30)*

**Session Classification :** Talks: Nuclear physics input in simulations

Contribution ID : 14

Type : **not specified**

## **Takami Kuroda "Various gravitational wave emission mechanisms from core-collapse supernovae"**

*Wednesday, 7 August 2024 10:30 (45)*

**Session Classification :** Talks: Simulations of compact stellar objects

Contribution ID : 15

Type : **not specified**

## **Yong Gao "Understanding the Solid Phase Inside Neutron Stars: Dynamical Tides in Binary Neutron Star Inspiral and Free Precession"**

*Wednesday, 7 August 2024 11:15 (45)*

**Session Classification :** Talks: Simulations of compact stellar objects



Contribution ID : 16

Type : **not specified**

## **Sreeta Roy / Pinaki Roy**

*Wednesday, 7 August 2024 12:20 (30)*

**Session Classification :** Talks: Simulations of compact stellar objects

Contribution ID : 17

Type : **not specified**

## Eva Sramkova

**Session Classification :** Talks: Simulations of compact stellar objects

Contribution ID : 18

Type : **not specified**

## **René Šprňa "Iron line modeling and possible constraints on neutron star equations of state"**

*Wednesday, 7 August 2024 15:00 (30)*

**Session Classification :** Talks: Simulations of compact stellar objects

Contribution ID : 19

Type : **not specified**

## **Polychronis Koliogiannis Koutmiridis "Probing the Nuclear Equation of State in the Multi-messenger Astronomy Era: Insights from Gravitational Waves"**

*Tuesday, 6 August 2024 15:00 (30)*

**Session Classification :** Talks: Nuclear physics input in simulations

Contribution ID : 20

Type : **not specified**

## **Martin Urbanec "Universal relations among neutron star parameters"**

**Session Classification :** Talks: Theory of GW emission and detection

Contribution ID : 21

Type : **not specified**

## **Tehran Restauracja, Konstantego Ildefonsa Gałczyńskiego 9, 00-363 Warszawa**

*Tuesday, 6 August 2024 18:30 (180)*

**Session Classification :** Social Dinner

Contribution ID : 22

Type : **not specified**

## Radim Pánis

**Session Classification :** Talks: Simulations of compact stellar objects

Contribution ID : 23

Type : **not specified**

## **Michele Zanolin "Gravitational Waves from Neutrino-Driven Core Collapse Supernovae: Predictions, Detection, and Parameter Estimation"**

*Tuesday, 6 August 2024 14:30 (30)*

**Session Classification :** Talks: Nuclear physics input in simulations